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CATCGAAGCGTTATGGCCTGGGAGCCCACCGGGGGAGACTCAACATCCAGGCAGGCATTAATGAAAATGACTTTTAC
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AAGACCAACCTGGCTAGGATAAGAGAAATTATGGAGACATTTGGGAAGCAGCCTGTCAGCCTACCCTCCAGGCGCCT
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(SEQ ID NO:1)

MARLGTACPALALALALVAVALAGVRAQGAAFEEPDYYSQELWRRGRYYGHPEPEPEPELFSPSMHEDLR
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TKFTGVITQGRNSLWLSDWVTSYKVMVSNDSHTWVTVKNGSGDMIFEGNSEKEIPVLNELPVPMVARYIR
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YSYASTHRLMTDARRRVCHTEDFQKEEGTVNGASWHTVAGSLNDFSYLHTNCFELSIYVGCDKYPHESEL
PEEWENNRESLIVFMEQVHRGIKGIVRDLQGKGISNAVISVEGVNHDIRTASDGDYWRLLNPGEYVVTAK
AEGFITSTKNCMVGYDMGATRCDFTLTKTNLARIREIMETFGKQPVSLPSRRLKLRGRKRRQRG (SEQ
ID NO:2)

FIGURE 1

underlined = deleted in targeting construct

[ ] = sequence flanking Neo insert in targeting construct

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[AGGCTGTCCCACCCACCATCTGCACCCGCTGCAGCGCCCGCGCCCCTGTCCCGCGCCGT
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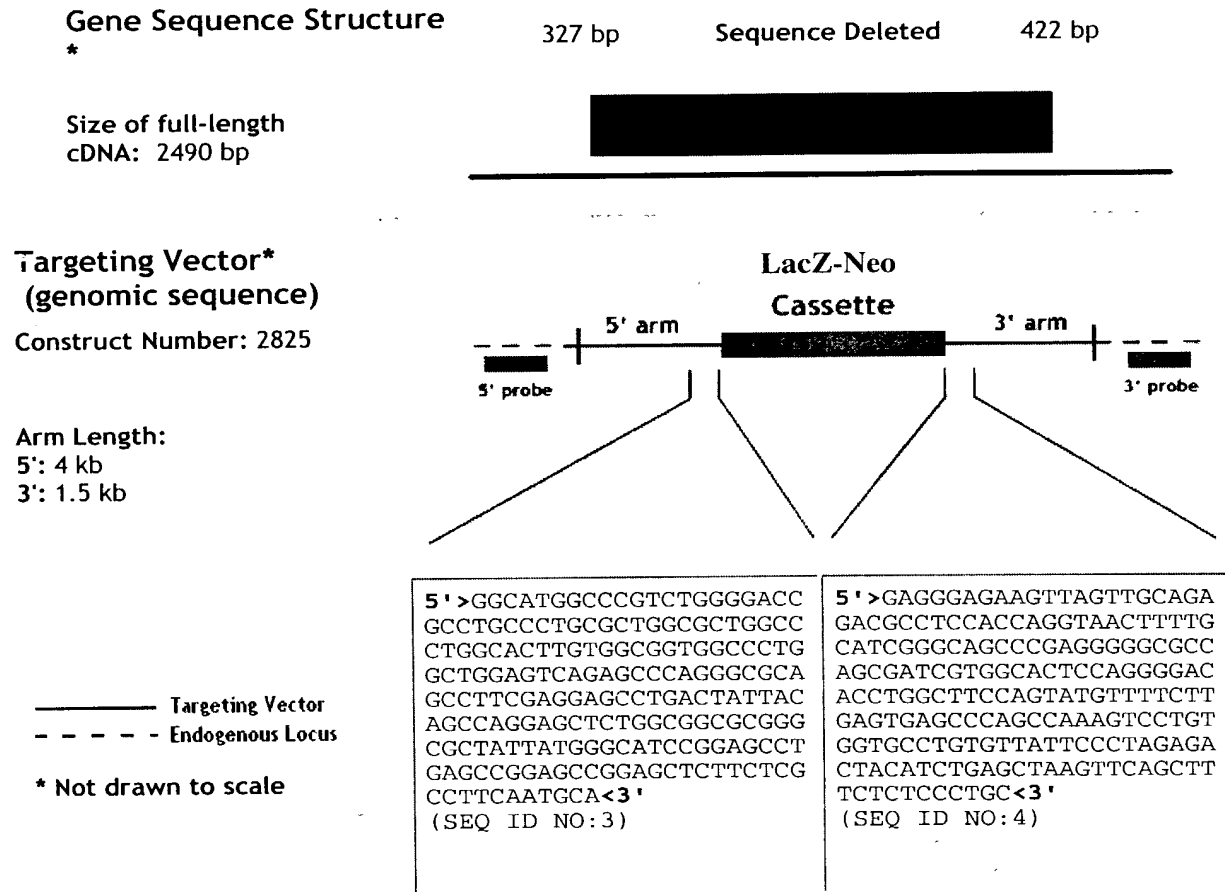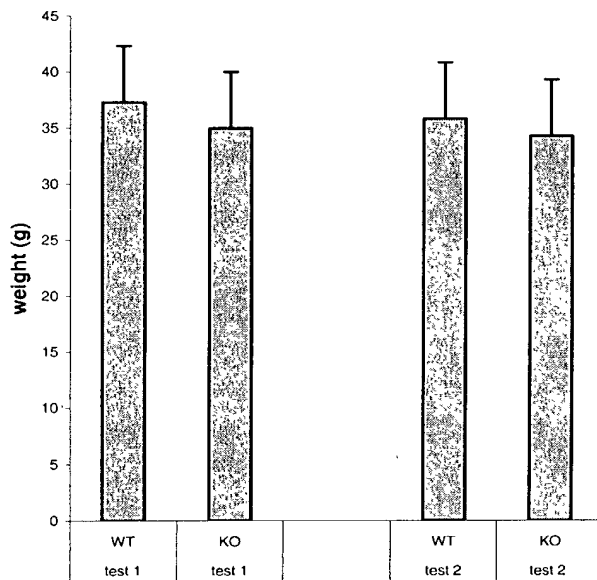
FIGURE 2A

Gene Sequence Structure*
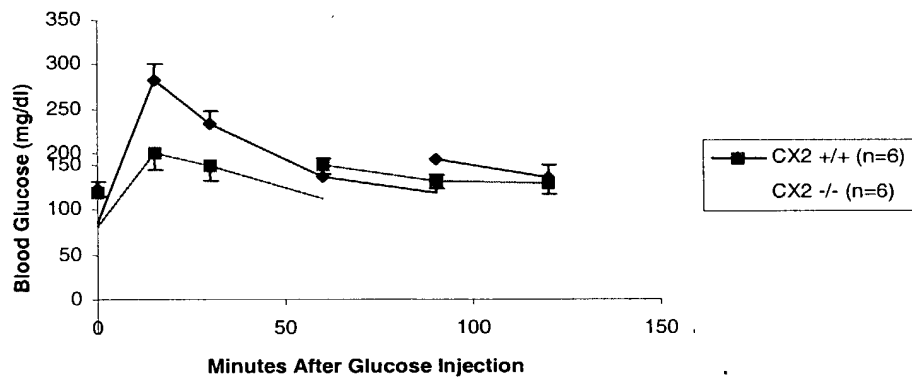
327 bp Sequence Deleted 422 bp

Size of full-length
cDNA: 2490 bp

Targeting Vector*
(genomic sequence)

LacZ-Neo
Cassette

Construct Number: 2825

5' arm 3' arm

5' probe 3' probe

Arm Length:
5': 4 kb
3': 1.5 kb

————— Targeting Vector
– – – – – Endogenous Locus

* Not drawn to scale

| 5'>GGCATGGCCCGTCTGGGGACC GCCTGCCCTGCGCTGGCGCTGGCC CTGGCACTTGTGGCGGTGGCCCTG GCTGGAGTCAGAGCCCAGGGCGCA GCCTTCGAGGAGCCTGACTATTAC AGCCAGGAGCTCTGGCGGCGCGGG CGCTATTATGGGCATCCGGAGCCT GAGCCGGAGCCGGAGCTCTTCTCG CCTTCAATGCA<3' (SEQ ID NO:3) | 5'>GAGGGAGAAGTTAGTTGCAGA GACGCCTCCACCAGGTAACTTTTG CATCGGGCAGCCCGAGGGGGCGCC AGCGATCGTGGCACTCCAGGGGAC ACCTGGCTTCCAGTATGTTTTCTT GAGTGAGCCCAGCCAAAGTCCTGT GGTGCCTGTGTTATTCCCTAGAGA CTACATCTGAGCTAAGTTCAGCTT TCTCTCCCTGC<3' (SEQ ID NO:4) |

FIGURE 2B

FIGURE 3

FIGURE 4